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BOSTON, MA 02210				
EXAMINER				
RETTA, YEHDEGA				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/747,511

Applicant(s)

LANDROCK, PETER

Examiner

Yehdega Retta

Art Unit

3622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 60 and 63-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 60 and 63-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/02)
Paper No(s)/Mail Date 8/22/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

This office action is in response to the Request for Continued Examination filed October 30, 2007. Applicant amended claims 60 and 63 and canceled claims 61, 62 and 66. Claims 60, 63-65 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 63 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant canceled claims 61, 62 and 66. Claim 63 is now dependent to canceled claim (claim 62). Correction is required.

Claims 60, 63-65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 60 recites a method of electronically negotiating an electronic negotiable document having a value, transferring the electronic negotiable document to a buyer and “splitting said electronic negotiable document in buyer temper-resistant document carrier hardware into two or more new electronic negotiable document each having a value such that the sum of the said two or more values of the new electronic negotiable documents adds up to said value of said electronic negotiable document, digitally signing said splitting using said secret key of said buyer temper-resistant.” It is unclear what “having a value” means. Is the document

considered valuable or does the document include dollar amount. It is also unclear, when the splitting is performed, if the document is split into several pages or the dollar amount is split. Again the claim recites digitally signing the splitting, (not the split document) therefore, it is unclear how the step of splitting is digitally signed. The claim also recites splitting the document into two or more new document. It is unclear if the document carrier hardware creates new electronic document with new values or if the document itself is split into several documents. If it is the latter it is unclear how the document is split into several documents.

According to the specification:

Examples of END include electronic cash, in which the issuer is called a "Bank", with special equipment for issuing ENDs; here, the document carriers are used for negotiation, not issue. A further example is electronic bank cheques, in which each document carrier comes with a watermark of the Trusted Third Party (again called the "Bank") and each document carrier may be an issuer. A further example is the bill of lading, which is similar to the example of bank cheques, but need not necessarily have watermarks. The same applies to bills of exchange.

A preferred feature for electronic bank cheques is the so-called "splitting" of a purchased cheque. A purchased cheque may be split into two by means of two digital signatures by the buyer. The document carrier verifies that the total amount of the two split parts adds up to the amount of the original. A digital signature is generated by the document carrier and the two separate parts can then be negotiated individually. Subsequently, buyers will have to authenticate not only the issuing signature but also the splitting signature. The split is performed in the following manner: the original END, as represented in the document carrier of the current owner, may be split into two or several numbered versions, the sum of their values adding up to the value of the original. A split version consists of the original, together with some information such as its value and sequence number, and this is signed with the secret key of the document carrier. If the document carrier has the status of an issuer, the original issuing signature may be deleted to save space.

Any END could be split, even for example a bill of lading, in which case the information could include attributes such as quantities of goods as well as, or instead of, monetary value. An oil cargo for example could be divided, and the electronic bill of lading split accordingly.

In light of the specification it is unclear if the document is a chequebook (in which the amount) or a bill or lading (in which the value is “quantities of goods”).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 60, 63, 64 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. (US 5,224,162) further in view of Fischer (US 5,001,752).

Regarding claim 60, Okamoto teaches and electronic negotiable document having a value (electronic bill), providing said seller with seller tamper-resistant document carrier hardware, said seller tamper-resistant document carrier hardware having its own public-secret key pair, said document carrier bearing said electronic negotiable document and a signature calculated using said secret key; providing said buyer with buyer tamper-resistant document carrier hardware, said buyer tamper-resistant document carrier hardware having its own public-secret key pair, and wherein said secret key is not accessible to said buyer. Okamoto teaches electronic bill issued from banks (same as applicant's invention); banks generating pairs of secret/public key together with the face value of the electronic bill (see col. 8 lines 36-49); banks establishing hierarchical structure corresponding to the face value of the electronic cash to be issued (see col. 11 lines 5-44, col. 13 lines 7-30). Okamoto teaches use of the electronic cash between a user and a shop, and between one user and another (see col. 13 lines 7-17), wherein the buyer splits the check electronically into two or more parts and then negotiates those parts separately without the

involvement of a trusted third party (TTP) wherein each part is subjected to a digital signature; splitting the electronic check into two or more checks and digitally signing each check; negotiating said new ENDs separately to one or more further buyers without the involvement of a trusted third party (TTP) (see abstract, col. 1 line 25 to col. 2 lines 17, col. 2 lines 42-67, col. 3 line 33 to col. 4 line 39, col. 5 line 35 to col. 6 line 20). Okamoto does not explicitly teach the secret key of the hardware is not accessible by the buyer or seller. Fischer teaches a tamper proof hardware storing a secret key of a public/private key pair wherein users will not be able to determine the contents of the storage device i.e., the private key (see col. 4 lines 35-46). Fischer teaches a secure, microprocessor based hardware, which performs public key cryptographic operations to obtain trusted time stamping with a minimum of intervention by third parties wherein the hardware platform includes at least one digital clock and a stable, secure storage device to record the private half of a public/private key pair and coupled to both the digital clock and the storage device is a data processing device, which performs public key signature operations in a secure and tamper-proof manner. Fischer teaches only the processing device having access to the secure storage device and its associated private key. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the secret key only accessible to the device, as in Fischer, so that the digital signature operation be secure and tamper-proof, as taught in Fischer (see abstract, col. 2 lines 36-49, col. 4 lines 35-46, col. 6 lines 9-24).

Regarding claim 64, Okamoto teaches the tamper-resistance document carrier hardware bearing an issuing signature (bank signature) and transferring the issuing signature (see 2 lines 43-67, col. 6 lines 1-40). Fischer also teaches the tamper-resistance document carrier hardware

bearing an issuing signature and transferring the issuing signature (see col. 6 line 47 to col. 7 line 30). Fischer teaches a document a manufacturer's certification C embodied within it the public key which is associated with the device's private key as well as the manufacturer's public key and includes the digital signature of the device's public key by the trusted manufacturer (see col. 6 line 47-67).

Regarding claim 65, Okamoto does not explicitly teach deleting said issuing signature after said transferring the issuing signature. However official notice is taken that is old and well known to delete the original information if new information is created. It would have been obvious to one of ordinary skill in the art at the time of the invention to delete the original signature to save memory space.

Claim 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. (US 5,224,162) in view of Fischer (US 5,001,752) further in view of Ishiguro et al. (US 5,396,558).

Regarding claim 63, Okamoto does not explicitly teach the electronic card includes identifier signed by the secret key. Ishiguro teaches IC cards with public-secret key stored in it and the secret key used for digital signature (col. 4 lines 12-17, col. 12 lines 61 to col. 13 line 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a card identification number in Okamoto's card, as in Ishiguro, so the validity of the card can be verified.

Response to Arguments

Applicant's arguments filed October 30, 2007 have been fully considered but they are not persuasive. Applicant argues that in Okamoto the seller is the bank. Whether the splitting is done on a seller document carrier or on buyer document carrier does not make a patentable difference since a "document carrier" is capable of splitting a value in an electronic bill. Applicant also argues that in Okamoto the electronic cash is already split that is it is divided into amounts of different values.

Claims are given the broadest reasonable construction consistent with the specification. *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). "Words which are defined in the specification must be given the same meaning when used in a claim." *McGill, Inc. v. John Zink Co.*, 736 F.2d 666, 674 (Fed. Cir.), *cert. denied*, 469 U.S. 1037 (1984). Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578,580 (CCPA 1965). The applicant must do so by placing such definitions in the specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

Examiner agrees that in Okamoto the electronic bill includes different checks with different values and each value is negotiated separately. Examiner would like to point out that

according to the claim; it is unclear if the negotiable document is a single document or a checkbook in which individual checks are created by the document carrier. It is also unclear what is considered a splitting of “a document” and “value”.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yehdega Retta whose telephone number is (571) 272-6723. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YR

/Yehdega Retta/

Primary Examiner, Art Unit 3622

